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9. (New) An anaesthetic controller for influencing the rate of active substance supplied to a patient's body (14) to attain and maintain a desired anaesthetic state comprising model computing means (10) for calculating actual current value of the current active substance concentration (CN_{actual}) in a patient's body (14) on the basis of a patient model (11) by utilizing former values (R) of the active substance previously supplied to the patient's body, and control means (16) for changing the rate (R) of supply of the active substance supplied to the patient's body as a function of the actual current value (CN_{actual}) of the current active substance concentration (CN_{actual}) such that the present active substance concentration (CN_{actual}) is controlled to attain a target value ($CN_{desired}$).

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10. (New) The anaesthetic controller as defined in claim 1 wherein the former values (R) of the active substance supplied to the patient's body include prior active substance rates and prior active substance time periods of supply to a patient's body.

11. (New) The anaesthetic controller as defined in claim 9 including means (19) for adjusting the target value ($CN_{desired}$) of the active substance concentration.

12. (New) The anaesthetic controller as defined in claim 9 including means (20) for computing the target value ($CN_{desired}$) of the active substance concentration dependent upon patient's measured body functions.
13. (New) The anaesthetic controller as defined in claim 9 including means (20) for computing the target value ($CN_{desired}$) of the active substance concentration dependent upon patient's measured body functions, and said computing means (20) includes means (23) for generating an active substance concentration target signal (CNT_{BIS}).
14. (New) The anaesthetic controller as defined in claim 9 including means (20) for computing the target value ($CN_{desired}$) of the active substance concentration dependent upon patient's measured body functions, and said computing means (20) includes means (23) for generating an active substance concentration target signal (CNT_{BIS}) from a depth of patient's anaesthesia signal (EEG/BIS) and a BIS target value signal T_{BIS} .

15. (New) The anaesthetic controller as defined in claim 9 including means (19) for generating a patient passive target signal (CNT_{MAN}) of the active substance concentration, means (20) for generating a patient dependent target signal (CNT_{BIS}) of the active substance concentration, and means (18) selectively responsive to said two last-mentioned means (19, 20) for transferring the desired value of the active substance concentration ($CN_{desired}$) to effect desired rate (R) of supply of the active substance to the patient's body.

Al 16. (New) The anaesthetic controller as defined in claim 9 including means (18) for selecting one of a patient passive target signal (CNT_{MAN}) of the active substance concentration and a patient dependent target signal (CNT_{BIS}) of the active substance concentration to effect desired rate (R) of supply of the active substance to the patient's body.

17. (New) The anaesthetic controller 9 including means (18) for selecting between two separately generated active substance concentration target values (CNT_{MAN} , CNT_{BIS}) incident to effecting the desired rate (R) of supply of the active substance to the patient's body.

18. (New) The anaesthetic controller as defined in claim 10 including means (19) for adjusting the target value ($CN_{desired}$) of the active substance concentration.

19. (New) The anaesthetic controller as defined in claim 10 including means (20) for computing the target value ($CN_{desired}$) of the active substance concentration dependent upon patient's measured body functions.
20. (New) The anaesthetic controller as defined in claim 10 including means (20) for computing the target value ($CN_{desired}$) of the active substance concentration dependent upon patient's measured body functions, and said computing means (20) includes means (23) for generating an active substance concentration target signal (CNT_{BIS}).
21. (New) The anaesthetic controller as defined in claim 10 including means (20) for computing the target value ($CN_{desired}$) of the active substance concentration dependent upon patient's measured body functions, and said computing means (20) includes means (23) for generating an active substance concentration target signal (CNT_{BIS}) from a depth of patient's anaesthesia signal (EEG/BIS) and a BIS target value signal T_{BIS} .

22. (New) The anaesthetic controller as defined in claim 10 including means (19) for generating a patient passive target signal (CNT_{MAN}) of the active substance concentration, means (20) for generating a patient dependent target signal (CNT_{BIS}) of the active substance concentration, and means (18) selectively responsive to said two last-mentioned means (19, 20) for transferring the desired value of the active substance concentration ($CN_{desired}$) to effect desired rate (R) of supply of the active substance to the patient's body.

Al 23. (New) The anaesthetic controller as defined in claim 10 including means (18) for selecting one of a patient passive target signal (CNT_{MAN}) of the active substance concentration and a patient dependent target signal (CNT_{BIS}) of the active substance concentration to effect desired rate (R) of supply of the active substance to the patient's body.

24. (New) The anaesthetic controller 10 including means (18) for selecting between two separately generated active substance concentration target values (CNT_{MAN} , CNT_{BIS}) incident to effecting the desired rate (R) of supply of the active substance to the patient's body.

25. (New) The anaesthetic controller as defined in claim 17 including means (19) for adjusting the target value ($CN_{desired}$) of the active substance concentration.

26. (New) The anaesthetic controller as defined in claim 17 including means (20) for computing the target value ($CN_{desired}$) of the active substance concentration dependent upon patient's measured body functions.
27. (New) The anaesthetic controller as defined in claim 17 including means (20) for computing the target value ($CN_{desired}$) of the active substance concentration dependent upon patient's measured body functions, and said computing means (20) includes means (23) for generating an active substance concentration target signal (CNT_{BIS}).
28. (New) The anaesthetic controller as defined in claim 17 including means (20) for computing the target value ($CN_{desired}$) of the active substance concentration dependent upon patient's measured body functions, and said computing means (20) includes means (23) for generating an active substance concentration target signal (CNT_{BIS}) from a depth of patient's anaesthesia signal (EEG/BIS) and a BIS target value signal T_{BIS} .